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TRANSACTIONS AND ABSTRACTS.

1921.

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- 2:5-Diphenyl-7-methyl-1:2:3:4:5:6-benz-ditriazole** (SCHMIDT and HAGENBÖCKER), A., i, 900.
- 2:6-Diphenyl-4-methylpyranhydrone**, and its derivatives (SCHNEIDER and MEYER), A., i, 681.
- 1:4-Diphenyl-4-methyl-5-pyrazolone** (WISLIGENUS and v. SCHRÖTTER), A., i, 672.
- 2:6-Diphenyl-4-methylpyrylium salts** (SCHNEIDER and MEYER), A., i, 681; (SCHNEIDER and SEEBACH), A., i, 878.
- 2:3-Diphenyl-6-methylquinoxaline, 5-chloro-** (MORGAN and GLOVER), T., 1706.
- 2:3-Diphenyl-7(6)-methylquinoxaline, 6(7)-chloro-** (MORGAN and CHALLENOR), T., 1539.
- 4:6-Diphenyl-2- β -naphthylpyridine**, and its picrate (DILTHEY and others), A., i, 736.
- 4:6-Diphenyl-2-naphthylpyryl ferrichlorides** (DILTHEY, BAURIEDEL, GEISSELBRECHT, SEEGER, and WINKLER), A., i, 190.
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- 2:5-Diphenylpyrazine, monobromo-, 3-mono-, and 3:6-di-cyano-, and 6-hydroxy-** (GASTALDI), A., i, 604.
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Hemicellulase.

Hydroxynitrilase.

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- 3-*p*-Toluenesulphamino- α -naphthoquinone-2-pyridinium, anhydride (ULLMANN and ETTISCH), A., i, 270.
- p*-Toluenesulphonic acid**, benzene-diazonium ester (DUTT, WHITEHEAD, and WORMALD), T., 2089.
- o*- and *p*-Toluenesulphonamides, separation of (HERZOG and KREIDL), A., ii, 357.
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- Toluene-*p*-sulphonic acid**, crystallography of substituted amides of (JAEGER), A., i, 18.
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- o*-Toluenesulphonyl chloride**, 6-chloro-, and 6-chloro-3- and -4-nitro-, and their salts and derivatives (DAVIES), T., 878.
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- o*- and *p*-Toluenesulphonyl chlorides, melting points of mixtures of (HARDING), T., 260.
- p*-Toluenesulphonyl-*p*-aniside** (HALBERKANN), A., i, 661.
- p*-Toluenesulphonylbenzeneazooacetic acid**, ethyl ester, amide and nitrile (TRÖGER and BERNDT), A., i, 745.
- Toluene-*p*-sulphonyl-*p*-chloroanilide**, acetyl derivative (HALBERKANN), A., i, 781.
- p*-Toluenesulphonyl-*p*-ethoxybenzeneazooacetic acid**, ethyl ester, amide and nitrile (TRÖGER and BERNDT), A., i, 745.
- p*-Toluenesulphonylmethoxybenzeneazooacetic acids**, ethyl esters, amides and nitriles (TRÖGER and BERNDT), A., i, 745.
- p*-Toluenesulphonylmethylaniline-*p*-sulphonic acid**, sodium salt (HALBERKANN), A., i, 780.
- N*-*p*-Toluenesulphonylmethyl-*p*-aniside** (HALBERKANN), A., i, 661.

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N-*p*-Toluenesulphonylmethyl-*p*-toluidide (HALBERKANN), A., i, 780.
N-*p*-Toluenesulphonyl- α -naphthaquinonephenoxazine (ULLMANN and ETTISCH), A., i, 270.
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p-Toluenesulphonyltolueneazooacetic acids, ethyl esters, amides and nitriles (TRÖGER and BERNDT), A., i, 745.
p-Toluenesulphonyl-*as*-*m*-xyleneazooacetic acid, ethyl ester, amide and nitrile (TRÖGER and BERNDT), A., i, 745.
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m-Toluidinoacetophenone, *p*-2':6'-*di*-nitro- (GIUA and GIUA), A., i, 859.
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- p*-Toluidino-4:5-dimethoxyphthalonic acid, *p*-toluidine salt (FARGHER and PERKIN), T., 1739.
p-Toluidinomethylceramidone, hydroxy- (BADISCHE ANILIN- & SODA-FABRIK), A., i, 361.
p-Toluidino-*m*-opianic acid (FARGHER and PERKIN), T., 1739.
 β -*p*-Toluidino- β -phenylethane, α -bromo- α -nitro-, and its derivatives (WORRALL), A., i, 411.
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o-2:5-Toluquinone-5'-bromo-3'-hydroxy-*p*-tolylimide, 3-bromo-4-amino- (v. AUWERS, BORSCHKE, and WELLER), A., i, 573.
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p-Tolyl β -chloroethyl sulphide and sulphoxide (FROMM and KOHN), A., i, 243.
 β -hydroxyethyl sulphide and sulphoxide, and their derivatives (FROMM and KOHN), A., i, 242.
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9-*o*- and -*p*-Tolylamino-9:10-dihydroanthracenes (BARNETT and COOK), T., 910.
3-*p*-Tolyl-5-anilinomethylene-2:4-thiazolodione (DAINS, IRVIN, and HARREL), A., i, 362.
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- m*-Tolylazoimide, 2:4-dinitro- (BRADY and BOWMAN), T., 898.
- 1-Tolylbenzoxazoles, 5-hydroxy- (HENRICH and OFFERMANN), A., i, 887.
- 3-*p*-Tolyl-5-benzylidene-2:4-thiazole-dione (DAINS, IRVIN, and HARREL), A., i, 362.
- m*-Tolyl benzyl ketone, 4-hydroxy-, and its derivatives (V. AUWERS), A., i, 118.
- m*-Tolyl α -bromobenzyl ketone, 4-hydroxy- (V. AUWERS), A., i, 119.
- o*-Tolyl isobutenyl ketone, *p*-hydroxy-, derivatives of (V. AUWERS), A., i, 466.
- o*- and *m*-Tolylcarbamides (DAINS and WERTHEIM), A., i, 61.
- p*-Tolyl-dichlorobismuthine (CHALLENGER and ALLPRESS), T., 917.
- p*-Tolyl β -chloroethylsulphone (FROMM and KOHN), A., i, 243.
- 3:4-Tolylenediamine, 2-chloro- (MORGAN and GLOVER), T., 1706.
- p*-Tolylfurylcampophorylmethane (WOLFF), A., i, 514.
- m*-Tolylhydrazine, 6-nitro-4-cyano-, and its acetyl derivative (BORSCH), A., i, 460.
- Tolylhydrazines, dinitro- (BRADY and BOWMAN), T., 894.
- p*-Tolyl β -hydroxyethylsulphone, and its benzoate (FROMM and KOHN), A., i, 242.
- Tolylhydroxylamines, action of, with ethyl and methyl alcohols and sulphuric acid (BAMBERGER), A., i, 718.
- m*- and *p*-Tolylidenesalicylidene-*o*-phenylenediamines (GALLAGHER), A., i, 715.
- 2-Tolylimino-3-tolyl-4-thiazolidones, and their derivatives (DAINS, IRVIN, and HARREL), A., i, 362.
- m*-Tolyl 4-methoxystyryl ketone, 4-hydroxy-, and its derivatives (V. AUWERS and ANSCHÜTZ), A., i, 682.
- 1-Tolyl-5-methylbenzoxazoles (HENRICH and MATULKA), A., i, 889.
- Tolylmethylnitroamine, 2:4- and 4:6-di- and 2:4:6-tri-nitro- (BRADY and GIBSON), T., 98.
- Tolylmethylnitrosamines, di- and tri-nitro- (BRADY and GIBSON), T., 103.
- 1-*o*- and *p*-Tolyl-5-methylpyrrolidones (EMMERT and MEYER), A., i, 268.
- 3-*p*-Tolyl-5- β -naphthylaminomethylene-2:4-thiazole-dione (DAINS, IRVIN, and HARREL), A., i, 362.
- Tolylloxalimino-chloride (STAUDINGER, GOLDSTEIN, and SCHLENKER), A., i, 435.
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- Tolylloxides, metallic, and their thermal decomposition (FISCHER and EHRLHARDT), A., i, 412.
- Tolylloxides, nitro-, metallic derivatives of (D. and A. E. GODDARD), T., 2044.
- β -*m*-Tolylloxycinnamic acid, 6-chloro-, and its ethyl ester (RUHEMANN), A., i, 431.
- o*-Tolyl propenyl ketone, *p*-hydroxy-, semicarbazidesemicarbazone (V. AUWERS), A., i, 466.
- 1-Tolyl-4-pyridones, and their salts (SMIRNOV), A., i, 595.
- o*-Tolyl β -semicarbazidoisobutyl ketone, *p*-hydroxy-, and its oxime (V. AUWERS), A., i, 466.
- 1-*o*-Tolyltetrazole-5-sulphonic acid, and its potassium salt (OLIVERI-MANDALÀ), A., i, 900.
- 1-*o*-Tolyltetrazole-5-thiol (OLIVERI-MANDALÀ), A., i, 900.
- o*-Tolylthiocarbamic acid, azide of (OLIVERI-MANDALÀ), A., i, 900.
- o*-Tolylthiocarbamide (OLIVERI-MANDALÀ), A., i, 900.
- a*-*m*-Tolylthiolpropionic acid, 5-bromo- (V. AUWERS and THIES), A., i, 121.
- α -*p*-Tolylthiolpropionic acid (V. AUWERS and THIES), A., i, 121.
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- Toxicity and osmotic pressure of soluble salts in soils (GREAVES and LUND), A., i, 758.
- Tragacanth ethyl ether (LILIENFELD), A., i, 650.
- Transmutation of elements, attempts at (BRINER), A., ii, 635.
- Transport numbers, apparatus for determination of, of colloids (STEIGMANN), A., ii, 13.
- Triacetoxymercuriphenolphthalein (WHITE), A., i, 71.
- Triacetylcholic acid (WIELAND and BOERSCH), A., i, 179.
- Triacetylquinide (FISCHER and AUGER), A., i, 419.
- Tri-*p*-anisylacetaldehyde, and its derivatives (ORÉKHOFF and TIFFENEAU), A., i, 566.
- s*-Tri-*p*-anisylbenzene (SCHNEIDER and SEEBACH), A., i, 859.
- $\alpha\alpha\beta$ -Tri-*p*-anisylethane- $\alpha\beta$ -diol (ORÉKHOFF and TIFFENEAU), A., i, 566.
- Tri-*p*-anisylloxazole (SCHÖNBERG and ROSENTHAL), A., i, 272.
- 2:4:6-Tri-*p*-anisylpyridine, and its salts (DILTHEY and others), A., i, 737.

- Tri-*o*-anisyltelluronium salts** (LEDERER), A., i, 108.
- 4'-Triazo-1-phenyl-5-methylbenzothiazole** (MORGAN and WEBSTER), T., 1074.
- Tribenzoyl-2-amino-1:8-dihydroxynaphthalene** (HELLER and KRETZSCHMANN), A., i, 459.
- Tribenzoyl-*p*-aminophenylhydrazine** (FRANZEN and STEINFÜHRER), A., i, 463.
- apo*Tricyclol**, and its derivatives (LIPP and PADBERG), A., i, 559.
- Tricycloylapotricyclylcarbamide** (LIPP and PADBERG), A., i, 559.
- apo*Tricyclylamine**, and its salts (LIPP and PADBERG), A., i, 560.
- apo*Tricyclylcarbamide** (LIPP and PADBERG), A., i, 560.
- apo*Tricyclylcarbimide** (LIPP and PADBERG), A., i, 560.
- apo*Tricyclylmethylurethane** (LIPP and PADBERG), A., i, 559.
- Tri(diethylaminomethyl) glyceryl ether** (MCLEOD and ROBINSON), T., 1473.
- Tridymite**, formation of, from quartz (REBUFFAT), A., ii, 44.
- Triethylarsine bromocyanide** and hydroxybromide (STEINKOPF and MÜLLER), A., i, 404.
- Triglycerides**, unsymmetrical, synthesis of (BERGMANN, BRAND, and DREYER), A., i, 444.
- Trigonalite** from Sweden (FLINK), A., ii, 268.
- $\gamma\epsilon\zeta$ -Trimethyl- α - β -acetoneglucose** (LEVENE, MEYER, and WEBER), A., i, 846.
- 1:3:8-Trimethylallantoin** (BILTZ and MAX), A., i, 895.
- Trimethyl- β -aminoethylammonium salts** (GABRIEL), A., i, 59.
- Trimethylammoniohexoic acid**, ϵ -hydroxy-, and its aurichloride (ACKERMANN and KUTSCHER), A., i, 499.
- Trimethylammoniovaleric acid**, δ -hydroxy-, and its aurichloride (ACKERMANN and KUTSCHER), A., i, 499.
- Trimethylbarbituric acid** (BILTZ and WITTEK), A., i, 455.
- as*-1:1':4-Trimethylbenzodioxazole** (HENRICH and ROSSTEUSCHER), A., i, 888.
- 1:4:5-Trimethyl-1-dichloromethylcyclohexen-2-ones** (v. AUWERS and ZIEGLER), A., i, 114.
- 1:2:4-Trimethylcoumarone** (v. AUWERS), A., ii, 73.
- 1:3:5-Trimethyl-2:4-diethylbenzene** and its 6-acetyl derivative (PHILIPPI and RIE), A., i, 729.
- 1:7:9-Trimethyl-4:5-dihydrouric acid**, 4:5-dichloro- (BILTZ and KRZIKALLA), A., i, 610.
- 1:2:2-Trimethyl-1:3-dimethanolcyclobutane** (ÖSTLING), A., i, 666.
- 1:2:2-Trimethyl-1:3-dimethanolcyclopentane** (ÖSTLING), A., i, 665.
- 1:4-*endo*Trimethylene-6-methyltetrahydroquinoxaline**, and its salts (MOORE and DOUBLEDAY), T., 1174.
- Trimethyleneperoxideazine**. See 4-Methyleneamino-3:5-dihydro-1:2:4-dioxazole.
- Trimethylethyluric acids** (BILTZ and MAX), A., i, 131.
- Trimethylglucosan**, preparation of (IRVINE and OLDHAM), T., 1754.
- Trimethylglucose** (KARRER), A., i, 707.
- N*-Trimethylglutamic acid**, and its aurichloride (ACKERMANN and KUTSCHER), A., i, 499.
- Trimethyl- β -methylglucoside** (IRVINE and OLDHAM), T., 1758.
- $\gamma\epsilon\zeta$ -Trimethylmethylglucoside** (LEVENE, MEYER, and WEBER), A., i, 846.
- Trimethylphloretin**, crystalline (DE ANGELIS), A., i, 731.
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